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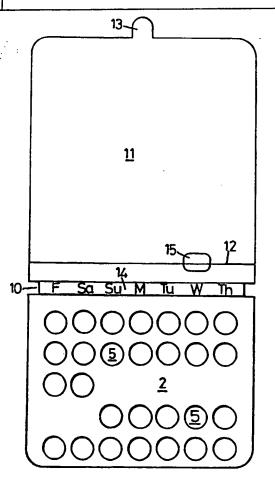
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US 3533371 A EP 0307352 A1

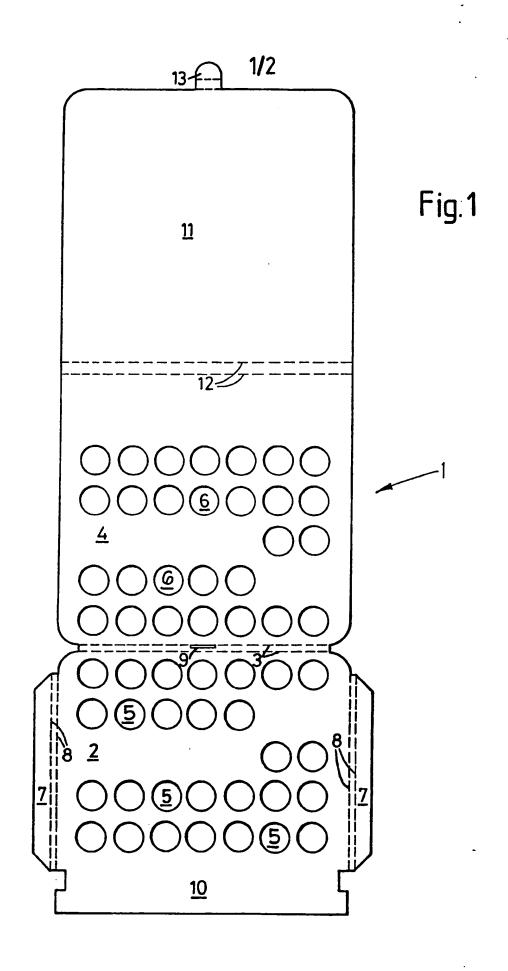
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#### (54) A packaging device for blister packaged pllls

(57) A packaging device for pills which have to be taken in a predetermined order comprises a pocket 2 for retaining an orderly array of blister packaged pills, the pocket having first and second opposing faces, each face having orderly arrays of lines of orifices 5 formed therein. Pills may be dispensed through the orifices 5 when the blister packaged pills are retained in the pocket 2, said packaging device further comprising a moveable marker 14 which is selectably positionable with respect to the lines of orifices The marker 14 may be a continuous band having mnemonics for days of the week printed thereon.



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.



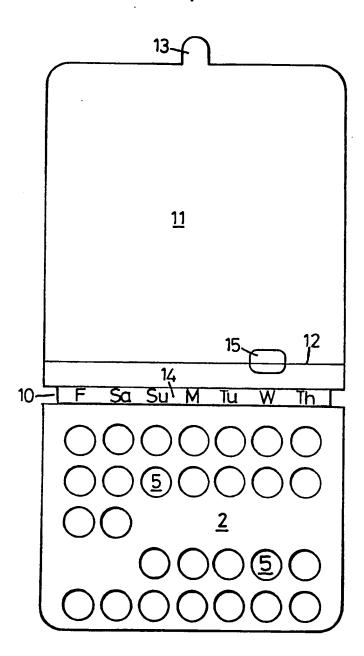


Fig. 2

## A PACKAGING DEVICE FOR BLISTER PACKAGED PILLS

Many courses of drugs such as birth-control pills and hormone replacement pills must be taken in a predetermined order and with a predetermined frequency in order to provide the required results. Prior art packaging methods for such applications are commonly based on known blister packaging systems, having either markings indicating the time relative to the time the first pill was taken for example, day 1, day 2 etc or fixed markings indicating an absolute time reference such as M, Tu etc. Consequentially, if more than one sort of pill is to be taken and the date the course of drugs was started is not known, it is not possible to ascertain whether at a given time a particular pill should be taken or not.

In one aspect the present invention provides a packaging device for pills which have to be taken in a predetermined order, comprising a pocket for retaining an orderly array of blister packaged pills, the pocket having first and second opposing faces, each face having orderly arrays of orifices formed therein, each orderly array of orifices comprising lines of orifices, the arrays of orifices being mutually aligned so that pills may be dispensed through the orifices when the blister packaged pills are being retained in the pocket, said packaging device further comprising a moveable marker which is selectably positionable with respect to the lines of orifices.

Preferably said marker includes fixing means for securing the marker relative to the pocket in any one of said selected positions.

In the context of the present invention the term 'pills' is used in the broad sense to include tablets and capsules.

An embodiment of the invention will now be described with reference to the following drawings, in which:

Figure 1 represents a view of a packaging device according to the present invention, which has been unfolded and laid out flat;

Figure 2 represents a view of the packaging device in its ready-to-use condition having the marker attached thereto.

Particularly referring to Figure 1, the packaging device generally denoted 1, is shown in an unfolded form. It has a generally rectangular first face 2 connected via lines of weakness 3 on a major side to a generally similarly, shaped and disposed, rectangular second face 4.

Both first and second faces 2 and 4 have identical arrays of orifices 5 and 6 formed therein, so that when the first face 1 is folded through 180 degrees about the lines of weakness 3, each and every orifice in one array of orifices is aligned with a corresponding orifice in the other array of orifices. arrays of orifices are in the form of a series of parallel lines of orifices and can be clearly seen to be in two distinct groups, indicating that this particular pocket is to be used for two phase courses of treatment. A hole 9 is centrally formed adjacent the lines of weakness 3. The first face 2 also has a pair of side-flaps 7 connected to its minor faces via lines of weakness 8. The side-flaps 7 occupy a central region of the minor sides and extend only partially the length of the minor sides. The first face 2 also has a narrow portion 10 near its major side distant from the junction of the first and second faces 2 and 4. A generally rectangular flap 11 of similar size to the first and second faces 2 and 4 is hinged to the major side of the second face 4 distant from the junction of the first and second faces 2, via lines of weakness 12. A tab 13 is centrally disposed on the free major side of the flap 11.

In order to assemble the packaging 1, first face 1 is folded about 180 degrees about the lines of weakness 3 so that both arrays of orifices 5 and 6 are aligned. The side-flaps 7

are then folded around the lines of weakness 8 and then adhered to the second face 4, thereby forming a pocket, as best shown in Figure 2 shows an endless band moveable marker 14 Figure 2. having mnemonics for the days of the week printed thereon, disposed in the narrowed portion of the first face 2. The band marker 14 is moveable, by for example its tab 15, such that the day the first pill was taken can be indicated. In this example, the first day is clearly a Friday. The tab 15 is also affixable to the first face, by for example an adhesive or merely folding, thereby providing a permanent indicator of the time the first pill was taken. In this preferred embodiment it can thus be easily ascertained at a glance whether a given pill has been taken or not, by looking in the space allocated for the present time. In this particular preferred embodiment, the mnemonics are day indicators, in another embodiment they might indicate more or less specific time intervals, for example half-day intervals M.am, M.pm, Tu.am etc.

In use a conventional blister packaging is slid into the pocket formed by the first and second faces 2 and 4, such that the pills are aligned with both arrays of orifices 5 and 6. The moveable marker 14 is then located to indicate the current time interval and then affixed in that position by any of the aforementioned methods, the pills can thus be removed from their packaging in the usual way.

After a pill has been taken, it is possible to close the package 1, such that it assumes a convenient wallet-like form, by folding the flap 11, 180 degrees about the lines of weakness 12, thereby obscuring the first face 2 and preventing a pill from being accidentally dispensed, and then engaging the tab 13 with the hole 9, thus locking the package 1 closed.

#### CLAIMS

- 1. A packaging device for pills which have to be taken in a predetermined order, comprising a pocket for retaining an orderly array of blister packaged pills, the pocket having first and second opposing faces, each face having orderly arrays of orifices formed therein, each orderly arrays of orifices comprising lines of orifices, the array of orifices being mutually aligned so that a pills may be dispensed through the orifices when the blister packaged pills are being retained in the pocket, said packaging device further comprising a moveable marker which is selectably positionable with respect to the lines of orifices.
- 2. A device as in Claim 1 wherein said marker includes fixing means for securing the marker relative to the pocket in any one of said selected positions.
- 3. A device as in any preceding claim wherein the marker is a marked endless band which encircles the first face.
- 4. A device as in Claim 3 wherein said endless band encircles the first face around a locally narrowed portion.
- 5. A device as in Claim 3 or 4 wherein the marker has a series of mnemonics for the days of the week printed thereon.
- 6. A device as in any preceding claim further comprising a closing flap which is hinged about an edge of the second face, and can be folded to obscure the first face, thus preventing a pill from being accidentally dispensed.
- 7. A device constructed, arranged, and adapted to operate substantially as hereinbefore described with reference to the accompanying drawings.

Patents Act 1977

E. miner's report to the Comptroller under Schion 17 (The Search Report)

Documents considered relevant following a search in respect of claims

Application number

9113363.7

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Relevant Technic	al fie	Search Examiner		
(i) UK CI (Edition	K	)	B8P (PAX, PP) B8C (CWS4)	
(ii) Int CI (Edition	5	)	B65D .	MIKE HENDERSON
Databases (see ov	ver)	Date of Search		
(i) UK Patent Offic	e	13 SEPTEMBER 1991		
(ii)				

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
Y	GB A 2178007 (AMERICAN HOME PRODUCTS CORP) whole specification relevant	1
У	EP Al 0307352 (CIBA-GEIGY AG) whole specification relevant	ı
Y	US 3533371 (GRONEMEYER et al) whole specification relevant	1
Y	US 3527190 (HUCK) whole specification relevant	1

Category	Identity of document and relevant passages	Relevant to claim(s)
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